Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Band	)	WT Docket No. 03-66 RM-10586
Part 1 of the Commission's Rules - Further Competitive Bidding Procedures	)	WT Docket No. 03-67
Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two Way Transmissions	)	MM Docket No. 97-217
Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico	)	WT Docket No. 02-68 RM-9718
Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets	)	WT Docket No. 00-230

To: The Commission

REPLY COMMENTS OF
ILLINOIS INSTITUTE OF TECHNOLOGY

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SUMMARY

In this proceeding, the Federal Communications Commission ("FCC" or the "Commission") seeks further comments in response to its Report and Order and Further Notice of Proposed Rulemaking to restructure the Broadband Radio Service ("BRS") and Educational Broadband Service ("EBS") band to implement the Commission's decision to allow "flexible use" of the band.

Through these Reply Comments, Illinois Institute of Technology ("IIT") provides its view of the potential five to eight year time horizon for high-power operations in the middle band, and urges the Commission to ensure that its actions continue to protect these operations. The educational community has made extensive use of ITFS spectrum for its intended purposes. IIT's experience in Chicago is but one example of the broad scope of existing ITFS operations and the extent to which ITFS programming has been incorporated into university curriculums. Although alternative means of providing educational content to students may be on the horizon, at the present time, such alternative technologies (such as the Internet) do not provide comparable picture quality, and would require substantial lead time before being incorporated into educational programs. Therefore, IIT requests that the Commission ensure that any transition to the FCC's new band plan or to an alternative technology for distance learning sufficiently protect students currently enrolled in academic distance learning programs, so that they may finish their programs without interruption.

In order to better meet the needs of students and the educational community, IIT supports substantial service-based performance requirements in the EBS/BRS band. IIT believes that a substantial service standard under Part 27 of the Commission's Rules will promote flexibility and permit licensees to provide continuous widespread services to the public. However, IIT also

believes that certain safe harbors should be adopted to reflect the unique circumstances of the BRS/EBS band. First, IIT supports a safe harbor establishing a five-year post-transition period for demonstration of substantial service. This five-year period will ensure that licensees are not penalized merely because they face renewal while their systems are in transition to the new band. IIT also believes that this will encourage the Commission to more equitably judge a substantial service performance standard based on a licensee's entire license term and not solely a snapshot of a system at the time of renewal. Second, IIT supports a safe harbor which protects a licensee who has entered into a lease agreement with a commercial lessee. IIT, like many other EBS licensees, leases its excess capacity to provide funding for the development of its useable technology and system expansion. It is therefore equitable that operations conducted by the lessee count toward a substantial service showing throughout the term of the lease, and indeed, that the entering into of the lease itself counts toward that showing. Third, IIT supports a safe harbor for licensees who provide specialized or technically sophisticated services that do not require a high level of coverage to benefit end users. Any niche broadband services should be reviewed on a case-by-case basis when substantial service performance requirements are reviewed. There are many instances of services which benefit consumers that would otherwise not be available to them, or are of a higher quality, are more advanced technologically, are more accessible, or have other benefits that are not specified.

IIT is a licensee of grandfathered E channels. Given the evolution in the EBS band and the Commission's plans for the new band plan, IIT believes that the time has come to remove all restrictions associated with the grandfathered E and F channels. If grandfathered ITFS licensees are not permitted to modify their facilities in order to facilitate the transition to the new band plan, continued restrictions could result in harmful interference, thereby thwarting the

Commission's goal of establishing efficiency and development in the band. In situations where the PSA of a grandfathered E or F group ITFS licensee overlaps to some degree with the PSA of the co-channel MDS licensee, IIT believes that voluntary settlement agreements should be the first line of resolving interference issues on a case-by-case basis, where each party is aware of its own unique technological needs. However, in situations where parties cannot arrive at a compromise voluntarily, IIT supports the use of the "splitting the football" approach to create GSAs for all other MDS and ITFS licensees.

Finally, IIT strongly believes that licensees must first be afforded an opportunity to voluntarily self-transition to the new band plan under several circumstances, including when no proponent files a timely Initiation Plan, when an Initiation Plan is withdrawn, or when multiple proponents have filed conflicting or competing Initiation Plans. The Commission's proposal to forcibly modify incumbents' licenses such that they can continue current operations only on a secondary basis to any new licensee operation on the spectrum pursuant to the new band plan -- without affording such licensees the opportunity to self-transition -- is blatantly unfair. Nor does the issuance of bidding credits offset or alleviate this unfairness. It is highly unlikely that the licensees would be able to acquire spectrum of equivalent worth in any spectrum auction.

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To: The Commission

REPLY COMMENTS OF
ILLINOIS INSTITUTE OF TECHNOLOGY

Illinois Institute of Technology ("IIT"), by its attorneys, hereby submits its reply comments in response to the comments on the Further Notice of Proposed Rulemaking in the

captioned matter.[1] By this FNPRM, the FCC considers the further actions that may be necessary to achieve the contemplated benefits of the new band plan and service rules established for the 2496-2690 MHz band -- governing the Educational Broadband Service ("EBS") and Broadband Radio Service ("BRS") -- in the Report and Order.

More specifically, the FCC seeks comment on the type of construction benchmarks and performance requirements to apply to the EBS and BRS services, suggesting that the "substantial service" standard is the preferred approach that best "fulfills [its] goal of promoting innovation and development by maximizing flexibility in the service rules."[2] In addition the Commission seeks further comment on how to modify its rules with respect to the grandfathered E and F channel ITFS stations in order to permit both MDS and ITFS stations to provide advanced broadband wireless services.[3] Finally, the FCC seeks comment on the manner in which it should proceed to the new band plan when no proponent has initiated a transition plan within the designated time period.[4]

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[1] Amendment of Parts 1, 21, 73 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Band, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165 (2004)("*Report and Order*" and "*FNPRM*," respectively).

[2] *FNPRM* at paras. 320-321; See also Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, *Notice of Proposed Rulemaking and Memorandum Opinion and Order*, 18 FCC Rcd 6722, 6800 at para. 191 (2003) ("*NPRM*"); See also, Amendments to Parts 1, 2. 87 and 101 of the Commission's Rules To License Fixed Services at 24 GHz, *Report and Order*, 15 FCC Rcd 16934, 16951 at para. 37 (2000) ("*24 GHz Report and Order*") ("Based on the record in this proceeding, we believe that the substantial service standard, in lieu of specific coverage requirements, best serves the public interest. In addition to being consistent with the approach used in other wireless services, we believe that this standard is sufficiently flexible to foster expeditious development and deployment of systems and will ultimately create competition among service providers in this band.").

[3] *FNPRM* at para. 337.

[4] *FNPRM* at para. 289.

IIT supports many of the policy goals espoused by the Commission in this proceeding, in particular, promoting the availability of broadband technologies to the public and improving the efficient use of spectrum.[5] As recognized by the Commission,[6] however, it is critical to preserve another important public policy goal first articulated in 1963 when the Instructional Television Fixed Service ("ITFS") was established, and which has been reiterated throughout the various refinements, revisions, and expansions to the FCC rules governing ITFS spectrum in the 2500-2690 MHz band: that is, to enhance educational programs by providing space for radio transmission of educational materials.[7] The Commission has acknowledged the continued importance of educational programs, including "the continued promotion of spectrum-based education services" as an ongoing policy goal of this proceeding.[8]

Accordingly, in order to best achieve *all* of the public policy goals articulated in this proceeding, including the need to preserve spectrum-based education services, IIT supports a substantial service performance requirement as a means for current ITFS licensees to meet their performance requirements through the transition period; *provided that* certain additional safe harbor provision are incorporated in order to effectively and fairly utilize the substantial service

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5 See *Report and Order* at paras 1-2.

6 See NPRM at para. 2 ("We emphasize, however, that we do not intend to evict any incumbent licensees from the affected band if they have been in compliance with our rules and continue to comply with our rules when we modify or augment them nor do we intend to undermine the educational mission of ITFS licensees.").

7 See e.g., Educational Television Report and Order, Docket No. 14744, 39 FCC 846 (1963), recon. denied, 39 FCC 873 (1964); Amendment of the Commission's Rules With Regard to the Instructional Television Fixed Service, the Multipoint Distribution Service, and Applications for an Experimental Station and Establishment of Multichannel Systems, *Report and Order*, 94 FCC2d 1203 (1983)("First Leasing Decision"); Amendment of Part 74 of the Commission's Rules With Regard to the Instructional Television Fixed Service, *Second Report and Order*, 101 FCC 2d 50 (1985); Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order*, 13 FCC Rcd 19112 (1998), *recon.*, 14 FCC Rcd 12764 (1999), *further recon.*, 15 FCC Rcd 14566 (2000)("Two-Way Order").

standard. With respect to the grandfathered E and F ITFS channels, IIT encourages the Commission to subsume the grandfathered E and F ITFS channels under the same FCC rules as other ITFS channels, thereby negating the static or "frozen" status of the grandfathered channels. Furthermore, any move toward the new band plan must include a licensee's right to "self-transition" before any action is taken by the FCC that unilaterally changes existing licenses and before auctioning off licensed spectrum to new bidders. IIT elaborates on these concepts below.

I.

DISCUSSION

A. IIT's Distance Learning Curriculum Requires Uninterrupted Use of Its High-Power ITFS Operations for the Next 5-8 Years.

In order to keep fully informed on the future use trends impacting BRS and EBS, the FCC requests that licensees currently using BRS or EBS for high-power operations predict, to the extent possible, how long they expect the middle band will need to be used for high power operation.[9] As the use of high-power operations are now, and for the foreseeable future are expected to be, integral to IIT's distance learning program, it is important for the FCC to understand the potential horizon for high-power operations and to ensure that its actions in this proceeding continue to protect these operations.

IIT has committed significant time, energy and investment incorporating its licensed spectrum into its educational mission.[10] Subsequent to the FCC's 1971 allocation of twenty-eight 6 MHz channels in the 2500-2690 band exclusively to ITFS, IIT launched what has become

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8 *Report and Order* at para. 5.

9 *FNPRM* at para. 372.

10 IIT currently holds licenses for eight (8) ITFS channels in Chicago, Illinois (These are the E Channel Group (Call Sign WBM 648) and the G Channel Group (Call Sign WHG 269)). Two (2) of these

one of nation's longest running ITFS educational systems, providing educational programming to its remote students located throughout the Chicago area. Since 1971, IIT has enhanced and expanded its distance learning and educational programming, as well as the supporting facilities and infrastructure associated with these systems.[11] Currently, IIT's distance learning program and its licensed ITFS spectrum are not just an integral part, but are imperative to IIT's educational mission, and IIT anticipates continuing use of the MBS for high-power video transmission for five to eight years.

A new distribution and technology infrastructure for high quality video, audio and data will take time to design, plan and implement, if it is to be as effective and as efficient as IIT's current system. IIT will need to initiate testing and validation of service and maintenance prior to any cutover to a new system; and this must be executed without significant interruption to IIT's academic program. Even while exploring and developing alternative technologies, IIT will have to devote substantial budgetary, staff and property resources to manage the transition to the FCC's new band plan.

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channels are operated digitally at 5:1 compression; five (5) of the channels operate in an analog mode. The eighth channel is leased to IIT's commercial partner.

[11] For example, IIT's number of broadcast rooms for ITFS programming has nearly tripled since its inception and IIT has continually expanded the receive sites utilized in distance learning, with new sites being added each semester. The number of courses offered through ITFS programming has steadily increased with the current course count at two-hundred and fifty (250). At the same time, IIT has sought to incorporate the latest technological developments into its ITFS systems. For example, IIT implemented digital compression on two of its channels in the first window provided by the FCC, enabling an increase in educational programming from eight (8) simultaneous, unique broadcast courses to fifteen (15). In the longer term, IIT has developed 10- and 20-year technology plans which are intended to ensure IIT's continued ability to provide distance learning to those students who need it by supporting alternative technologies as they become available. As will be discussed below, however, such alternative technologies are not at this time sufficiently developed to match the services provided through IIT's existing ITFS systems.

IIT must ensure that any transition either to the FCC's new band plan or to an alternative technology for distance learning, sufficiently protects the students currently enrolled in its academic distance learning programs so that they can finish their programs without interruption. Currently, IIT uses its licensed ITFS channels to offer 15 simultaneous, unique live broadcasts viewed by 2200 "remote" student enrollments over the academic year. Through its ITFS operations, IIT offers 19 master's degree programs, 33 certificate programs, and courses in engineering, the sciences, business and law. In all, IIT airs over 500 hours of educational programming each week to 58 corporate and public sites. The majority of IIT's students are on academic degree programs that span four or more years, therefore, if the Commission does not allow a sufficient timeframe for IIT to develop and integrate new technologies, its educational objectives – and those of its currently-enrolled students -- will be disrupted, and the public interest and mission of the FCC in establishing the ITFS spectrum, will not be served.

Moreover, IIT already is faced with having to replace or make up five streams of programming once the FCC's new band plan is in place. IIT's current provision of 15 simultaneous streams of unique, for-credit, educational programming over its licensed E and G channels utilize a digital compression rate of 5:1 over two channels and five analog channels. The new band plan under the Report and Order provides for two, 6 GHz MBS channels, which at a compression rate of 5:1 will support only 10 simultaneous streams. As a result, IIT will have to make other provisions for the 5 streams, either through increased digital compression, arrangements with other EBS licensees to utilize their channel(s) or by shifting programming to alternative technologies.

As discussed in its comments on the NPRM, IIT is currently exploring the use of the Internet in its efforts to accommodate the extra bandwidth, but the technology and methods most

useful for interactive distance-learning programs and live coursework are not available as of yet. Whatever the extent of educational programming currently offered over the Internet, the nature and quality of such programming are distinctly different from the programming provided via ITFS. At IIT, for example, most courses are taught in a two-hour, 50 minute period -- or, at most, two 75-minute sessions. Each session includes video of the instructor, screens of detailed materials, demonstrations in video, graphics, and animations in real-time. Students can call into the live classroom from remote sites to ask questions. Downstream transmissions are of some length and must be "interruption free" to maintain minimum quality.

These types of courses simply do not translate effectively to the Internet at this time. For example, the full-motion video utilized in ITFS cannot be provided over the Internet with comparable or even minimally acceptable quality. Streamed-video windows typically cover only a quarter of the PC screen, making it difficult for students to see the details of the presentation. The entire pedagogy of asynchronous versus synchronous delivery presents enormous challenges to faculty, technologists, instructional designers and campus infrastructure, among other things.

In addition to quality issues, campus networking must undergo dramatic expansion to accommodate the digitizing servers, storage systems, access controls, and other resources to manage Internet courses. It also may be necessary to change existing contracts with remote receive sites, a time consuming task by any measure. Course materials must be re-developed for the new platform to account for the differences in bandwidth and resolution. And enterprise course management systems are necessary to support students who cannot ask questions in real-time as they can with ITFS deliver platforms. At the current time, many students may be unable to view classes over the Internet at their corporate site due to security restrictions, while such restrictions do not prevent viewing ITFS programming.

All of these factors suggest a timeline of at least five to eight years before IIT would be prepared to shift from high-power operations to some alternative technology. This time period is IIT's best current estimate of the minimum time needed to ensure the workability of the Internet technology and to manage the shift in programming to the Internet. IIT will continue to pursue this and any other alternative technology, and will keep the FCC apprised of all developments in this matter.

B. Substantial Service Performance Requirements Promote Flexibility and Permit Licensees to Provide Continuous Widespread Services to the Public.

In the NPRM, the Commission sought comment on what performance requirements should be applicable to MDS BTA authorization holders and site-based MDS and ITFS licensees.[12] The Commission also requested comment on specific safe harbor provisions that would assist the public, licensees and the FCC in better gauging whether the licensee should have the expectancy of license renewal.[13]

Most commenters agree with the selection of a substantial service standard under Part 27 for EBS and BRS licensees, provided that certain safe harbor provisions are incorporated into the standard.[14] Given the Commission's decision to adopt geographic area licensing for MDS and

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[12] *NPRM* at paras. 190-198.

[13] *FNPRM* at para. 328.

[14] See Joint Comments of the Catholic Television Network and the National ITFS Association at p. 7 ("CTN/NIA Comments"); Comments of Hispanic Information and Telecommunications Network at p. 3 ("HITN Comments"); The Wireless Communications Association International, Inc, Comments on Further Notice of Proposed Rulemaking at pp. 2-8 ("WCA Comments"); Comments of Independent MMDS Licensee Coalition at p. 8 ("IMLC Comments"); Comments of Nextel Communications at p. 2 ("Nextel Comments"); Comments of Sprint Corporation at p. 5 ("Sprint Comments"); Comments of Clearwire Corporation in Response to Further Notice of Proposed Rulemaking at p. 12 ("Clearwire Comments); Comments of Bellsouth Corporation, Bellsouth Wireless Cable, Inc. and South Florida Television, Inc. at p. 3 ("Bellsouth Comments"); Comments of C&W Enterprises, Inc. at p. 2 ("C&W Comments"); Comments of Speednet, L.L.C. at p. 2 ("Speednet Comments"); Comments of Petitioner Cheboygan-Otsego-Presque Isle Education Service District and PACE Telecommunications Consortium at p. 2 ("PACE Comments"); Comments of Wireless Direct Broadcast System at p. 2 ("WDBS

ITFS and to eliminate forfeiture, cancellation, and discontinuance of service rules for certain BRS and EBS licensees, IIT supports the Commission's decision that the substantial service standard set forth in Part 27 of the Commission's Rules would provide the strongest incentives for licensees to develop and deploy new services. Moreover, IIT believes that a substantial service performance requirement would further the Commission's goal of regulatory parity, and agrees with the Commission that "construction benchmarks focusing solely on population served or geography covered do not necessarily reflect the most important underlying goal of ensuring public access to quality, widespread service."[15] Indeed, such benchmarks pre-define services, thus tending to stifle service innovation ironically in a flexible use context. As will be discussed below, however, certain additional safe harbors should be adopted to reflect the unique circumstances of the BRS/EBS bands. These safe harbors, however, should not be deemed in any way to increase the difficulty of meeting the generalized substantial performance standard set out in Part 27 of the Rules.

1. A Safe Harbor Permitting a Five-Year Post-Transition Period for Demonstration of Substantial Service is Advisable.

One potential safe harbor would address the likelihood that EBS and BRS licensees may not be able to demonstrate substantial service on the renewal date if that particular date is close to the timeframe of the transition to the new band plan. A substantial service performance evaluation as of the renewal date would not accurately reflect the licensee's actual performance, as licensees will be in the process of transitioning to a new system and new services and technologies may not be sufficiently available or may be in the process of being tested and

Comments"); Comments of Digital Broadcast Corporation at p. 2 ("DBC Comments"); Comments of Grand Wireless Company, Inc. at p. 1 ("Grand Wireless Comments").

[15] *FNPRM* at para. 323.

implemented.[16] Many EBS licensees may find it necessary to temporarily discontinue services, revise technologies, or revisit programming during the transition period. If the evaluation is made as of the renewal date, licensees may feel compelled to retain old technologies or legacy systems during the transition period, simply to meet renewal obligations. The public interest would not be served by a renewal process that fails to recognize the unique circumstances of the BRS and EBS bands.[17] Instead, the Commission should judge a substantial service performance standard based on a licensee's *entire* license term and not solely at the time of renewal.

Indeed, IIT supports the proposition asserted by WCA, CTN/NIA, Nextel, BellSouth and others that, where a BRS/EBS license expires at any time up to five years after the filing of the post-transition notification applicable to that license, and the licensee is unable to demonstrate substantial service as of the renewal date, the Commission should nonetheless renew the license, conditioned upon a demonstration of substantial service no later than five years after the filing of the post-transition notification.[18] IIT believes that this safe harbor is in the public interest, as it

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[16] CTN/NIA also recognized this problem, arguing that an EBS licensee should not be penalized at renewal for failing to meet the substantial service standard during the process of transitioning to the new band plan. See CTN/NIA Comments at p. 7.

[17] See also Nextel Comments at p. 3 ("Measuring substantial service during the transition would require licensees to needlessly invest in facilities that do nothing more than preserve their licenses pending completion of the transition. Rather than force licensees to redirect investment into facilities that serve as nothing more than regulatory placeholders pending transition to the new band plan, the Commission should encourage investments in facilities actually designed to serve the public.").

[18] See WCA Comments at p. 16; see also, CTN/NIA Comments at p. 8 ("…CTN and NIA urge the Commission to refrain from applying the substantial service standard until an EBS licensee has had a period of at least five years after the transition to the new band plan to use its spectrum. Specifically, in situations where an EBS license expires prior to the five year mark, and the licensee is unable to demonstrate substantial service at the time of renewal, the licensee should be granted an automatic renewal conditioned upon a demonstration of substantial service no later than five years after the filing of a post-transition notification in the licensee's market."); Nextel Comments at 4 ("[T]he Commission should provide that licensees whose license renewal terms expire prior to five years after the conclusion of transition are automatically eligible for renewal, subject to a showing of substantial service no later than five years after the transition plan is complete."); Sprint Comments at p. 9 ("The public benefits of overhauling the BRS/EBS rules cannot be realized by mechanically applying license renewal timelines

will enable EBS licensees to pursue and deploy the most advanced technologies to date. This safe harbor provision will also more equitably assess whether licensees have met substantial service based on a period of time that demonstrates actual use of the spectrum over a long period of time, instead of a mere "snapshot" on a particular date at, or immediately after, transition.

2. A Substantial Service Demonstration by an EBS Commercial Lessee Should Count Toward a Substantial Service Demonstration of the EBS Licensee.

IIT agrees with CTN/NIA that another safe harbor is needed to address the situation where an EBS licensee leases its spectrum for commercial services. In such cases, the licensee should be deemed to be providing substantial service with respect to *all* channels held by the licensee (even if certain channels are not leased and/or certain channels are not actually used by the commercial system at the time of renewal), if the Commission finds that the wireless system operated by the commercial lessee is providing substantial service pursuant to the criteria applicable to commercial service providers.[19] Indeed, IIT believes that the very act of entering into a lease agreement with a commercial operator should count toward the substantial performance determination.

IIT, along with many other EBS licensees, leases excess capacity on its channels to a commercial operator, in order to provide funding for the development of its technology and

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developed for the old BRS/EBS rules. Such action would only encourage licensees to maintain old technologies for fear that their planned new service offerings would not be sufficiently developed in time to meet the substantial service renewal standard at their renewal date. Accordingly…BRS and EBS licenses having renewal dates that occur prior to the date that is five years after the filing of the post-transition notification applicable to that license should be granted renewal, provided that the licensee demonstrate substantial service no later than five years after the filing of the post-transition notification."); BellSouth Comments at p. 13 ("BellSouth proposes that, in cases were a BRS or EBS license term would expire within five years following the completion of the transition, the permittee or licensee should obtain renewal of its license conditioned upon demonstrating 'substantial service' within five years from the post-transition notification date determined by Section 27.1235(a).").

[19] See CTN/NIA Comments at p. 9.

system expansion. It is therefore equitable and in the public interest for this lease agreement, and the operations conducted by the lessee thereunder, to count toward a showing of substantial service throughout the term of the lease. The introduction of this safe harbor will assist the Commission in employing the most technologically innovative and efficient development of the spectrum, and will afford licensees maximum flexibility in determining services in the band, therefore stimulating the development the EBS/BRS band.

3. A Safe Harbor is Needed for Provision of Specialized or Technically Sophisticated Services that do not Require a High Level of Coverage to Benefit End Users.

IIT supports BellSouth's assertions that a specific coverage threshold may exclude other specialized services that benefit a small number of people, and that an additional safe harbor is needed to address this circumstance.[20] The Commission has established a safe harbor for "niche, specialized, or technologically sophisticated services"[21] in other wireless services, even if the service does not cover large geographic areas, but "provides a benefit to consumers." This type of safe harbor should also be available to EBS/BRS licensees during the transition period and for the duration of the license.

IIT likewise supports the Commission's grant of EBS license renewals based on substantial service requirements in the entire GSA or a portion thereof, where the services provide benefit to consumers. This is true for both services to niche markets or areas outside those served by other EBS/BRS licensees as well as service to rural areas.

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[20] See Comments of BellSouth at p. 7.

[21] See Rural NPRM, 18 FCC Rcd at 20819, para 32.

C. The Commission's Treatment of Grandfathered E and F ITFS Channels During the Transition Period.

In the FNPRM, the Commission requested comment on how to modify its rules concerning grandfathered E and F channel ITFS stations in order to equitably allow both MDS and ITFS stations to provide advanced broadband wireless services without interfering with each other.[22] This issue is of particular importance to IIT as it has held grandfathered E Channels since 1983, which, to the current day, have carried certain restrictions not associated with any other channels in the BRS or EBS. Given the evolution in this band, and the Commission's plans for the new band plan, IIT believes that the time has come to remove all restrictions associated with the grandfathered channels. Some historical perspective helps to support IIT's position.

In 1983, the Commission acted to grandfather existing ITFS licensees operating on the E and F groups in perpetuity but with existing precedence in time and facilities.[23] Thus, while the FCC issued co-channel construction permits to MDS lottery winners, those lottery winners received such operational rights as they could exercise without causing interference to the co-channel ITFS receive sites. While the FCC determined that licensed ITFS operation on the E and F group were not secondary and were protected from interference, the licensees were not generally permitted to change transmitter location or antenna height, or to change transmission power.[24] In addition, any new ITFS receiver stations were not protected against interference

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22 *FNPRM* at para. 337.

23 See In the Matter of Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in Regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service, GN Docket No. 80-112, CC Docket No. 80-116, *Memorandum Opinion and Order on Reconsideration*, 98 FCC 2d 129 (1983) (*E and F Group Reallocation Reconsideration Order*).

24 See id. at para. 12.

from MDS transmissions.[25] As will be discussed more fully below, these restrictions, while appropriate at the time, are no longer relevant under the FCC's new band plan.

1. Grandfathered E and F ITFS Channels Should Be Treated Equally with Other MDS/EBS Channels Under the New Band Plan.

IIT supports the proposition asserted by CTN/NIA, WCA, Trans Video Communications, Inc. and the School Board of Miami Dade County Florida that grandfathered ITFS E and F channels should remain protected from interference and should be allowed to modify their facilities under the transition to the new band plan. Indeed, grandfathered ITFS licensees must be permitted to modify their facilities to adopt the new band plan or their very existence will create a daisy chain blocking the transition of all channels in a market.

But even in a post-transition environment, there remains no continued reason to subject grandfathered E and F Group EBS stations to the debilitating restraints of the grandfathering regime. When the incumbent ITFS E- and F-Group stations were grandfathered in 1983, it served the purpose of minimizing the interference effects those stations might have on newly-licensed co-channel MMDS stations. The new GSA rules, which apply to all EBS and BRS stations, are not based upon interference; the fact of interference is now irrelevant and hence, the benefits of grandfathering the regime are eliminated. Indeed, the grandfathering scheme -- which essentially froze the facilities in place in 1983 -- is inherently inconsistent with the central goal of this proceeding to promote flexible use.

Finally, grandfathering eliminates the grandfathered licensee's ability to promote the public interest benefits of more efficient use of spectrum gained through secondary market transactions, and denies the cash-strapped educator the opportunity to fund educational programs

[25] See id.

through such relationships. IIT, like other grandfathered E and F channel EBS licensees, has already entered into an excess capacity lease agreement with a commercial operator who reasonably expects to place IIT's excess capacity to a use serving the public. It is clearly not in the public interest to dash those expectations, which would be the result if grandfathered EBS stations remained in frozen status as odd exceptions to the flexible use regime. IIT concurs, therefore, with WCA, Trans Video Communications, CTN/NIA and others, that grandfathered ITFS channels should have recognized geographic service areas akin to ITFS stations licensed on other channels, and IIT should be permitted to transition to the new EBS band just like ITFS stations licensed on other channels.[26] As noted by Trans Video, to do otherwise would "[d]emot[e] grandfathered ITFS licensees to secondary status as part of the transition [and] would grievously undercut their ability to continue to serve the public interest."[27]

2. The "Splitting the Football" Approach Should be Used Where Voluntary Settlement Agreements are Insufficient.

In its FNPRM, the FCC seeks comment on what to do when the PSA of a grandfathered E or F Group ITFS licensees overlaps to some extent with the PSA of the co-channel MDS licensee.[28] In particular, when faced with this scenario, the FCC asks (1) whether it should adopt the "splitting the football" mechanism being used to separate other overlapping PSAs;[29] (2) whether it should continue to protect grandfathered ITFS E and F group receive sites that fall

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[26] See id.

[27] Trans Video Comments at p. 4.

[28] The Commission seeks comment on two possible scenarios: (1) where the PSA of the grandfathered E and F Group ITFS licensee almost entirely overlaps the PSA of the co-channel MDS licensee; and (2) where the PSA of the grandfathered E and F Group ITFS licensees overlap to some extent, but not as much as in the first scenario. In its Reply Comments, IIT is referring solely to the second scenario and does not address the first scenario where the grandfathered E and F ITFS PSAs overlap almost entirely with the co-channel MDS licensee's PSA.

[29] See *FNPRM* at para. 341.

outside the new GSAs;[30] and (3) whether it should allow grandfathered E and F Group licensees to modify and to assign their facilities where there is no co-channel MDS licensee.[31]

IIT agrees with Trans Video Communications, CTN/NIA[32] and WCA on this issue, that EBS licensees should have the option of entering into voluntary settlement agreements to determine the rights of co-channel MDS lottery winners and grandfathered ITFS licensees on the E and F group channels (e.g., those cases where the PSA of a grandfathered E or F group ITFS license overlaps that of a co-channel MDS license). Voluntary settlement agreements will provide licensees with the flexibility to form unique solutions to problems of interference on a case-by-case basis, taking into account the special technological needs of each party. Obviously, only incumbent MDS licensees operating on E-and F-Group channels (e.g., those who obtained the channels based upon 1983 applications) would be eligible to engage in such negotiations. If parties are unable to agree to a voluntary designation of service area boundaries, however, then IIT agrees with Trans Video, CTN/NIA and WCA that the Commission should grant the grandfathered EBS station and co-channel MDS station exclusive GSAs and use the new rules for "splitting the football" to create GSAs for all other MDS and ITFS licensees.[33]

D. Licensees Must Be Afforded an Opportunity to Self-Transition.

Having adopted a three-year transition period ending January 10, 2008,[34] the Commission considers in the FNPRM how to move the transition forward when no proponent files a timely

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30 See id. at para. 342.

31 See id. at para. 343.

32 CTN and NIA suggest mutually agreed upon divisions of spectrum capacity and/or geographic territory. See CTN/NIA Comments at p. 5.

33 See WCA Comments at p. 27; see also CTN/NIA Joint Comments at pp. 2-7; Trans Video Comments at p. 15.

34 See 47 C.F.R. § 27.1231(b).

Initiation Plan.[35] Concluding that it needs a plan to "clear current spectrum assignments from the band while preserving the incumbents' ability to access spectrum comparable in value to currently assigned spectrum,"[36] the Commission proposes first to forcibly modify the incumbents' licenses such that that they could continue current operations *on a secondary basis* to any new licensee operation on the spectrum pursuant to the new band plan.[37] Upon such modification, incumbent licensees then would be issued "bidding offset credits," purportedly to be used in the subsequent auction of all untransitioned spectrum in order "to obtain spectrum licenses comparable in value to their original licenses."[38]

This proposal generated near universal opposition by the commenters -- commercial operators and incumbent licensees alike. WCA, Nextel, Sprint and Clearwire, for example (representing significant commercial operators), each condemn the Commission's license modification/bidding offset credits proposal absent an opportunity for the incumbent licensee to "self-transition" to the new BRS/EBS plan.[39] HITN, CTN/NIA, IMWED, Speednet, Wireless Direct Broadcast System and Digital Broadcast Corporation -- each representing either EBS or BRS licensees -- echoed this condemnation, arguing that the Commission's proposal would be "both unfair and detrimental to the interests of education,"[40] "contrary to the Commission's

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35 *FNPRM* at para. 289.

36 Id. at para. 290.

37 Id. at para. 297. Moreover, the Commission emphasized that the incumbents' modified secondary operations were intended to be short term only; the modified incumbent licenses would be valid only until expiration of their current terms; they would not be renewed upon expiration of their current terms.

38 Id. at para. 290.

39 WCA Comments at p. 18; Nextel Comments at p. 6; Sprint Comments at pp. 4-5; Clearwire Comments at p. 8.

40 CTN/NIA Comments at p. 17.

position" that it did "not intend to evict incumbent licensees from the affected band,"[41] and a "prescription for the extirpation of the EBS service."[42]

While each of these commenters urged the Commission to allow some reasonable opportunity for incumbent licensees to initiate their own transition to the new band plan before imposing any modifications to their licenses, there were differing views on what constituted a "reasonable" opportunity. WCA, for example, argues that a BRS/EBS licensee should be required to notify the Commission no later than 60 days following the initiation filing deadline that it intends to self-transition, accept bidding credits in exchange for cancellation of its license, or accept a single channel in the MBS and reimbursement of its costs of migration to that channel."[43] Nextel, on the other hand, urges only that the licensee should have a "reasonable time" to voluntarily transition to the new band plan.[44] HITN, as well, maintains that an untransitioned licensee should be permitted to state "within some period of time" that it intends to self-transition.[45] The law firm of Blooston, Mordkofsky, Dickens, Duffy & Prendergast ("Blooston/Law"), on behalf of multiple BRS clients, dispenses with the interim notification requirement altogether and asserts only that incumbent licensees should be accorded a period of

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41 HITN Comments at p. 8.

42 IMWED Comments at p. 4. See also Speednet Comments at p. 3; WDBS Comments at p. 3; DBC at p. 4 (each characterizing the FCC's proposal as "rendering licensees without recourse").

43 WCA Comments at p. 19. Sprint also argued that licensees should be required to notify the Commission electronically within five days of the expiration of the sixty day self-notification period. Sprint Comments at p. 5.

44 Nextel Comments at p. 6.

45 HITN Comments at p. 8.

one year from January 10, 2008 to file applications for authority to modify their individual licenses to operate under the new band plan.[46]

IIT strongly agrees with the vast majority of commenters that BRS and EBS licensees should be afforded an opportunity to self-transition to the new band plan. IIT, for example, has already invested considerable resources converting to digital transmission. IIT is perfectly capable of self-transitioning if necessary, and such action would further the goals of the Commission in this proceeding. The proposed default clearing of spectrum in MEAs without allowing self-transitions unfairly penalizes those who are able to transition on their own and, in particular, will result in unfair bias against the EBS licensee.

In short, there is simply no justification for placing EBS and BRS licensees at the mercy of one or more proponents who may be affected by larger issues of cost, market definition or technical limitations. The fact that a proponent did not materialize, or failed in its transition efforts, should not cause the Commission to lose hope that the market can be transitioned.[47] Keeping in mind that transition is at best a messy process, IIT believes that any licensee in a market should be able to initiate a self-transition process at any time after January 10, 2008.

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[46] Blooston/Law Comments at p. 3.

[47] IIT, along with most of the commenters in this proceeding takes strong issue with the Commission's proposal to require proponents to transition all of the stations within a given Major Economic Area ("MEA"). In comments to be filed on the Petitions for Reconsideration of the ***Report and Order***, IIT will endorse those commenters urging the Commission to use Basic Trading Areas ("BTAs") as the geographic benchmark for transitions to the FCC's new band plan. The FCC's current proposal to use the vastly larger MEA as the geographic unit for managing the transition obviously adversely impacts the ability of proponents to implement a given transition plan, increasing the costs and administrative responsibilities many times over. Similarly, a licensee's ability to self-transition an MEA, with the corresponding larger number of stations with which it must coordinate, is neither feasible nor fair, particularly in light of the relatively simple requirements that should mark a successful self-transition.[47] Moreover, the idea that EBS licenses would be able to obtain spectrum of equivalent value in a subsequent auction of MEAs is questionable at best. It is unlikely that an EBS licensee would be able to obtain a license tailored to the area it actually serves at a reasonable price when competing with large

Because a change of frequencies to those held by other EBS and BRS licensees is required, the self-transitioning licensee should be able to cause other EBS and BRS licensees with overlapping GSAs to participate in this process. Because self-transitioning licensees do not realize the same economic benefits as a commercial proponent might realize upon transition, the self-transition should be limited to those minimal changes required to assure that intra-market interference is not caused. Thus, there should be no requirement of the self-transitioning licensees to purchase or install upgraded converters. Instead, IIT believes that the licensee who first files a self-transition notice both with the Commission and with those licensees in the market with overlapping GSAs ("Affected Licensees") shall be deemed to have triggered a process whereby all Affected Licensees must cease operations not in conformance with the post-transition frequency assignments and characteristics within 180 days of this notice date, absent a consent to an extension approved by all Affected Licensees (and lasting no more than 180 days).[48] As this time, operations conducted in accordance with the post-transition frequency plan should enjoy primary status as against adjacent market co-channel stations not in conformance with that plan. In brief, this would be a compulsory transition that is deemed concluded when all operations not in conformance with the post-transition frequency plan cease.[49] The foregoing proposal is entirely consistent with the goal to rapidly move to the new band plan, and may be necessary to

commercial operators. Each of these factors dictates in favor of BTAs as the geographic benchmark for the transition.

[48] IIT objects to an overly short time frame for filing this notice. The Commission should adopt rules to best enable self-transitions to occur. Accordingly, licensees should be permitted to file a self-transition notice up to 180 days following the January 8, 2008 period, and be given at least 180 days following submission of the notice to effect the self-transition.

[49] IIT also believes that Affected Licensees in a market should be able to self-transition by the same process at any time before a proponent files an initiation plan and before January 10, 2008, but with the exception that all Affected Licensees must consent to the transition. In this case, IIT sees the wisdom of

allow licensees to commence operations on the new band plan while a transition progresses in adjacent markets.

II.

CONCLUSION

For the reasons above, IIT urges the Commission to adopt rules in accordance with its reply comments herein.

Respectfully submitted,

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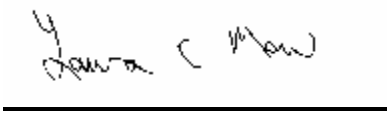

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delaying the primary status of these licensees until the later of January 10, 2008 and 180 days after the self-transitioning notice.

CERTIFICATE OF SERVICE

I, Donna B. Fleming, a secretary with the law firm of Gardner Carton & Douglas LLP, hereby certify that on this 8th day of February, 2005 a copy of the foregoing **"Reply Comments of Illinois Institute of Technology"** was mailed by U.S. First-Class Mail, postage prepaid to the following:

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